

REMARKS

Claims 4-6, 8, 11 and 14 are pending in this application. Claims 1-3 and 7 are newly cancelled and the withdrawn, non-elected claims 15-22 are newly cancelled. Claims 9, 10, 12 and 13 were previously cancelled. Accordingly, claims 11 and 14 have been amended to delete dependence on cancelled claims. Claim 4 has been amended to overcome the rejection under 35 USC 112, second paragraph. Claims 4 and 5 have been amended to overcome the rejection under 35 USC 112, first paragraph. Non-elected claims 15-22 have been cancelled in light of a divisional application having been filed on October 31, 2007, to pursue the subject matter of these claims.

No new matter has been added.

Claims 1, 4, 5, 7, 8, 11 and 14, have been rejected under 35 USC 112, second paragraph, because the Examiner has found the portions of these claims to be indefinite. Claims 1 and 7 have been cancelled. With respect to claim 4, the Examiner has found the recitation of “in a plant cell or a plant” to be redundant. Claim 4 has accordingly been amended to delete this recitation.

The applicants submit that all presently considered claims are allowable under Section 112, second paragraph. Withdrawal of this rejection is respectfully requested.

The applicants respectfully traverse the rejection of claims 1-8, 11 and 14 under 35 USC 112, first paragraph.

The Office Action states that SEQ ID NO: 2 alone does not constitute a functional promoter, but rather functions as a light responsive element, and a minimal promoter needs also to be included in order to be a light responsive

promoter. Accordingly the recitation of a “minimal promoter of CaMV 35S46” has been added to claim 5 by amendment, as shown above. The light responsive element now includes a 12-bp cis-element (SEQ ID NO: 2) and the minimal promoter of CaMV 35S (CaMV 35S46). The applicants submit that amended claim 5 satisfies the enablement requirement and is allowable under Section 112, first paragraph.

The Office Action states that the applicants’ prior assertion of the reference, Mitsuhashi et al., *Plant Cell Physiol.* 37(1) p. 49-59(1996), is insufficient to establish enablement of the instant cis-element of SEQ ID NO: 1. Accordingly, claim 4 has been amended, as shown above, to recite “about nine copies” of SEQ ID NO: 1 as a core sequence. The applicants submit that amended claim 4 is fully allowable under Section 112, first paragraph.

The applicants continue to submit that undue experimentation would not be required for a person skilled in the art to use the presently claimed elements as light responsive elements in other plants, based upon the previously asserted relevant description in the reference (Ngai, et al., *The Plant Journal* (1997), 12(5), p. 1021-1034).

Please reconsider that the reference of Ngai et al., describes that cis-element affecting the expression of asparagine synthetase (AS) genes whose transcription is negatively regulated by light and the cis-element were found in nuclear extracts of tobacco, pea and Arabidopsis and therefore be universal factors involved in light-activated transcriptional repression. Further, Ngai, et al. also describes that the identity of “repressor” elements in AS1 would be useful for engineering a promoter for temporal expression of foreign genes in plants in which foreign gene expression could be repressed by light and/or sucrose (see page 1032, left column, lines 9 to

13). From the standpoint of the Ngai et al. reference, the applicants submit that a person of ordinary skill in the art would understand that there is evidence suggesting that the elements which relate to the light-repressed transcription would likely work similarly in plants other than pea.

Accordingly, the applicants submit that all presently considered claims are fully allowable under Section 112, first paragraph.

The applicants respectfully traverse the rejection of claims 1-3 and 7 under 35 USC 102(b) in view of Jansen et al. or Okubo et al. or Richards et al.

None of the cited references anticipate the presently claimed invention or make it obvious.

Please note, however, that claims 1-3 and 7 have been cancelled, thus making the present rejection to be moot.

The applicants respectfully traverse the rejection of claims 4-6 and 8 under 35 USC 102(b) or in the alternative, under 35 USC 103(a) in view of Richards et al. The applicants submit that this reference does not make the presently claimed invention to be obvious.

The nucleic acid disclosed in Richards et al., is an *Arabidopsis thaliana*, telomere isolated in the yeast, *Saccharomyces cerevisiae*. On the basis of the nucleic acid, Richards et al., demonstrates the conservation of telomere structure in eukaryotes, which provides guidance to determining the basic structure of *A. thaliana* telomeres. Further, Richards describes the structure of the *A. thaliana* clone containing both telomeric repeat arrays and flanking telomere-associated sequences isolated by functional complementation using a telomere-deficient yeast artificial chromosome vector. Thus, it is clear that the nucleic acid described

in Richards et al., relates to telomere activity in yeast, and it is quite a different function from the promoter of the presently claimed invention. As the applicants previously asserted in the Amendment filed June 18, 2007, Richards et al. neither discloses nor teaches that the promoter is defined by expression of a peptide-coding sequence operatively linked downstream of the promoter in a plant cell, or that a plant is repressed by irradiation with white light at 70 p mole/m²/sec or irradiation with red light for 2 minutes as in the presently claimed invention. The applicants have pointed out evidence that the genomic region of Richards et al. is not a promoter as in the presently claimed invention.

Accordingly, the applicants submit that the presently claimed invention is not where disclosed, suggested or made obvious by the cited art. The presently claimed invention is fully allowable under both Section 102(b) and Section 103(a) in view of the cited references.

In view of the above and the attached two technical references, the applicants submit that this application is in condition for allowance and a Notice to that effect is respectfully requested.

Respectfully submitted,

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